

DOCUMENT RESUME

ED 391 412

HE 028 848

AUTHOR Antonio, Anthony Lising
TITLE Making Social Comparisons: Black and White Peer Group Influence in College. ASHE Annual Meeting Paper.
PUB DATE 2 Nov 95
NOTE 41p.; Paper presented at the Annual Meeting of the Association for the Study of Higher Education (20th, Orlando, FL, November 2-5, 1995).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Achievement; Activism; *Blacks; *College Students; Group Dynamics; Higher Education; *Influences; *Peer Groups; *Peer Relationship; Self Esteem; Stress Variables
IDENTIFIERS African Americans; *ASHE Annual Meeting; Cooperative Institutional Research Program

ABSTRACT

This study examined the influence of the African American college student peer group on its members, focusing on the extent to which the peer group impacts the education of its members, and how the process of peer influence occurs within the group. Using social comparison theory, the study drew on a subset of data from a national study sponsored by the Cooperative Institutional Research Program database, conducted by the Higher Education Research Institute at the University of California, Los Angeles (UCLA), namely 425 African American first-year college students at predominantly white institutions. The results of factor analyses indicated that the types of characteristics that describe the makeup of campus peer groups are very similar among African American and white students. The results also indicated that although entering characteristics of students were the most instrumental in affecting self-concept and political orientation, peer groups influence was also evident in these areas. The relative influence of white peer groups, however, appears to be stronger and more prevalent. Two appendixes provide information on variable blocks and peer factors. (Contains 30 references.) (MDM)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

Making Social Comparisons: Black and White Peer Group Influence in College

Anthony Lising Antonio
University of California, Los Angeles

Paper presented at the annual meeting of the Association for the Study of Higher Education
November 2, 1995
Orlando, Florida

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- ☒ This document has been reproduced as
received from the person or organization
originating it
- ☐ Minor changes have been made to
improve reproduction quality

- Points of view or opinions stated in this
document do not necessarily represent
official OERI position or policy

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

ASHE

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

14E028 848



**ASSOCIATION
FOR THE
STUDY OF
HIGHER EDUCATION**

**Texas A&M University
Department of Educational
Administration
College Station, TX 77843
(409) 845-0393**

This paper was presented at the annual meeting of the Association for the Study of Higher Education held at the Marriott Hotel, Orlando, Florida, November 2-5, 1995. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

Introduction

Casual brainstorming on discrete influences, various change mechanisms, and the nature of student peer groups uncovers a multitude of ideas, images, and seemingly obvious empirical facts. Commonly held attitudes, aspirations, and behaviors - the group's culture - surely must serve as guides and examples for members to follow. "Peer pressure" is such a common concept that the Reagan anti-drug doctrine, "Just say no," addressed it as a major factor in the country's adolescent drug abuse problem. As college educators, then, why is it necessary to investigate an everyday concept, a social pattern that is probably better understood by most high school students (intuitively at least) than higher education researchers?

Socialization on college campuses represents an important aspect of learning and development beyond the controlled settings of the classroom and lecture hall (Astin, 1977; Pascarella, 1985; Weidman, 1989). For almost thirty years, we have known that beyond teaching in the academy, peer influence is recognized as a major factor in individual development in college (Newcomb, 1966). Over the years, academe has responded with research on the impact of college peer groups on students (Pascarella & Terenzini, 1991), but the furious pace of changing college demographics and its effect on college climates (Altbach & Lomotey, 1991), warrants a fresh look into peer groups on campus, particularly those composed of students of color. The research addressed in this paper investigates the influence of the African American student peer group on its members and asks: To what extent does the African American peer group impact the education of its members, and how does the process of peer influence occur within that group?

Related Research

Much of the early work on the study of peer influences in college was done by Wallace in the 1960s. His book, *Student Culture*, clearly illustrated the importance of the college student's peer group in influencing members' attitudes towards the attainment of high grades, academic achievement, and aspirations for graduate study (Wallace, 1966). Though

his study was limited to a single institution, Wallace showed that freshmen generally conform toward the attitudes and values of their fellow students. However, because the amount of peer group influence varied with the amount of time a student spent with other students and the affinity he or she felt toward them, Wallace hypothesized a further distinction. When viewing students as interpersonal socialization agents, it is important to distinguish between the general organizational environment of the campus, the smaller units within it, and the student's most proximate social environment.

Newcomb's and Wilson's (1966) edited volume on college peer groups signified both a recognized importance in the role of the peer group in student socialization and a move toward research grounded in social psychological frameworks. The groundwork laid out in the book included a synthesis of the conditions leading to peer group formation and the factors mediating the extent of peer group influence. According to Newcomb (1966), peer group formation depends on conditions of similarity between members in such areas as attitudes, interests, age, sex, social class, and religious affiliation. Viewing peer group formation as another form of the acquaintance process in social psychology, similarity among individuals is seen to positively influence attraction and perceived favorability between potential members (Newcomb, 1961). Group formation was also cited as dependent on the opportunity for contact and the frequency of interaction among group members. Factors mediating peer group influence were many and complex. In addition to similarity or the homogeneity of the group, the size of groups, their relative communicative isolation within the campus community, and the amount of salience given to the group by the individual each contribute to the power of the group to change its members (Newcomb, 1966). Elsewhere in the volume, Clark and Trow (1966) emphasized the role of institutional and student subcultures, describing how the historically derived culture of an institution prescribes and affects the various student cultures which precede and continually influence the characteristics of student peer groups. Lastly, Wilson (1966) enumerated the social,

cognitive, and affective characteristics the entering student brings to college that may further mediate the influence of the peer group on their socialization.

These early works were not built upon directly but were followed by research exploring the impact of student peer groups through the theories of relative deprivation and environmental press. Relative deprivation contends that feelings of dissatisfaction with one's own status may arise because of perceived discrepancies with a local reference group. In other words, people may see their particular situation as "bad" by comparing themselves to locally accepted norms rather than to people in general. This concept was first applied to higher education by Davis (1966). He used relative deprivation theory to explain a negative relationship between the career aspirations of men and the selectivity or perceived quality of the institution these men attended. Davis reasoned that the men in his study de-valued their GPA at more selective schools, and since GPA was strongly associated with career choice, consequently reduced their career aspirations. In terms of relative deprivation theory, students tended to evaluate their academic ability against their campus peers without regard to inter-school differences (i.e., taking into account the fact they attend a competitive school). On the evidence of this result, Davis likened the campus to a frog pond where "it is better to be a big frog in a small pond than a small frog in a big pond" (p. 31). In the same year, Thistlethwaite and Wheeler (1966) advanced an opposing point of view. They found positive correlations between school selectivity and a student's educational aspirations, and cited the "press of the college environment," or the demands and expectations of teachers and students, as the intervening process responsible for the result. This explanation, commonly called environmental press, asserts that students take the selectivity of their college into account when making assessments of their ability, and therefore will augment their comparative judgements by the relatively higher achievements of their local environment. For Thistlethwaite and Wheeler, as far as judgements of ability or self-concept were concerned, it was better to be a frog in a more competitive, large pond than in a less challenging, small pond. Both works have led to nearly thirty years of "frog pond" research

supporting one or both of the theories (Bachman & O'Malley, 1986; Marsh & Parker, 1984; Bassis, 1977; Werts & Watley, 1969). However, while many of these studies implicitly suggested that the peer group was the arena in which judgmental self-assessments were made, attention has shifted away from the formation and the complex makeup of different student peer groups observed by Newcomb and Wilson years earlier. For example, the emphasis placed on the similarity of group attitudes and values, the salience of the group to the member, and the distinction these factors make between the institutional level peer group and smaller interpersonal peer groups, were not incorporated as part of the problems posed in the research following their work.

More recently, Astin (1993a) has returned to earlier conceptions of the student peer group and re-stated its importance in the socialization process of attending college. Demonstrating peer group influence on a number of outcomes, he generally concluded that "the student's peer group is the single most potent source of influence on growth and development during the undergraduate years" (p. 398). And although his study again only considered the large-scale institution-wide peer group, the evidence for the potential impact of the student's interpersonal environment prompted elaboration on a theory of peer group effects. Astin (1993a) enumerated three hypotheses on the impact of the peer group: (1) peer groups having the greatest impact will be those with whom the individual identifies most strongly; (2) the impact of the peer group is proportional to the extent to which the individual seeks acceptance from that group; and (3) the magnitude of any peer group effect is proportional to the frequency and intensity of interaction an individual experiences with that group. Each of these hypotheses is strongly reminiscent of the work compiled by Newcomb and Wilson twenty-seven years earlier. The hypotheses further suggest that the most proximal peer groups should have the greatest influence. That is, the values, attitudes, beliefs, and behaviors of the people a student interacts with daily will more strongly influence his or her college experience than the affects and behaviors of students in the greater institution, regardless of majority (or mean) characteristics. Furthermore, by

implicating the concepts of individuals identifying with the group and seeking acceptance from the group with the effectiveness of peer group influence, the hypotheses point to social identity (Tajfel, 1972), and therefore to issues of race and ethnicity, as important variables to be considered in peer group research.

Given the long-recognized importance of the peer group in the college experience and previous knowledge of the conditions and aspects of their formation and influence, it is surprising that race and ethnicity have rarely surfaced as primary variables in their study. Certainly factors of group salience, shared attitudes and values, and group proximity strongly suggest variables considering race, ethnicity, and the culture surrounding them to be central to the study of peer group influence. Maybe the almost exclusively white makeup of yesterday's college environments coupled with a focus on institution-wide peer groups have precluded their explicit attention. With today's multi-ethnic campuses and trends toward "balkanization" or self-segregation among all students (Duster, 1991), however, one can reasonably assume that many contemporary peer groups are formed and maintained by factors of race and ethnicity. Specifically, some can quite reasonably assume that campus peer groups are likely to be mono-ethnic or mono-racial.

Astin's recent work (1993a) acknowledged the likelihood of the interaction of peer group influence with race and ethnicity, stating that contrasting patterns of change between white and African American students in college were likely due to the differing characteristics of each other's peer group. Building upon this hypothesis, a recent investigation attempted to discern whether African American students were influenced differently than white students by the institution-wide peer group (Antonio, 1994). Using academic ability self-ratings as the dependent variable, the results showed positive peer group influence on white students, but did not show an equivalent effect for African American students. These results suggest that the use of institution-wide measures of peer group characteristics may be valid for the white (majority) student population, since their proximal peer groups are more likely to

reflect those norms. Among different ethnic and racial groups, however, the institutional norms were probably not so indicative of their interpersonal peer groups.

Research Question

Previous research has rarely focussed on students of color in the study of peer group influence in college. This research focuses on the African American student peer group and builds upon the failure of previous research to demonstrate institution-wide peer group effects on African American students. The study is organized around three questions. First, what are the differences in attitudinal and values norms between African American peer groups and institution-wide peer groups? Second, does a mono-ethnic, African American student peer group influence their members differently from a majority, white student peer group? Last, what social psychological mechanism can explain how students of color use and distinguish between interpersonal and institution-wide peer group influence?

This study addresses these questions with a quantitative inquiry of peer group impact on African Americans. The theoretical perspective taken in the development of this investigation is grounded in social comparison theory, while the methodological framework borrows from classic college impact models (Pascarella & Terenzini, 1991; Astin, 1977; Feldman & Newcomb, 1969).

Interpretive Framework: Social Comparison Theory

Two of the common theories used to explore peer group effects in college, relative deprivation and environmental press, are implicitly grounded in social comparison theory. Though rarely acknowledged in those contexts, social comparison theory describes a social psychological mechanism driving the surface descriptions of these theories. Social comparison theory is used here to explain how and why students of color may be influenced more strongly by their local, typically mono-ethnic peer group than by the campus-wide, institutional peer group.

Peer group influence implies that individuals react behaviorally and attitudinally to the people with whom they interact most closely. In other words, people observe those around

them, observe themselves, "learn," and change as a result. Festinger (1954) described a specific psychological process that directs this "social comparison," predicated by an individual's need for accurate *self-evaluation*. Festinger reasoned that individuals are driven to make accurate evaluations of themselves and look to others as comparative yardsticks and bearers of reference information. That is, people evaluate their opinions, values, behaviors, and capabilities by comparing themselves with others. More specifically, his similarity hypothesis states that individuals prefer to make comparisons with similar others as they provide the most informative comparisons. Though Festinger himself never defined "similarity", it has been interpreted by many researchers to refer to the specific dimensions on which comparisons are made. For example, a particular writer may compare herself to other writers on writing ability, but will compare her karaoke singing to other amateur vocalists, not her writing friends.

The concept of similarity has been extended further by Miller, Turnbull, & McFarland (1988) to distinguish between *universalistic* and *particularistic* evaluations. With universalistic evaluations, people compare themselves relative to all people in general. Particularistic evaluations, however, specifically involve comparisons with relevant others - not those who merely possess similar traits, but those with whom an individual feels some emotional bond. Both the similarity hypothesis and the concept of particularistic evaluation help explain why a student of color may consider a like-ethnicity peer group member as a more favorable comparison subject because of their cultural or ethnic similarities, as opposed to another student or group of students of a different ethnicity within the school or the student body as a whole. For example, given an African American student trying to gauge his or her ability to pursue graduate studies, drawing a comparison with a white student may not appear as informative or even valid as making a comparison with an African American peer whose college and life experience may be more similar. Furthermore, the student may also feel a greater emotional affinity or bond with an African American peer and thereby place greater value on them as useful referent. On a predominantly white campus, this can be

viewed as a preference for particularistic evaluations over universal ones. Thus, peer group influence, operating through social comparison, may be more powerful within the smaller, ethnic-specific peer groups on campus.

The nature of the influence derived from social comparisons may also extend beyond self-evaluation. An individual can seek *self-improvement* by learning, adapting, and deriving motivation from encountered differences with comparison subjects. Comparisons for this purpose are generally believed to be upward, or made with those judged to possess superior qualities or skills. Upward comparisons allow one to learn skills or behaviors from the more successful (Berger, 1977) and may also provide inspiration by example as in a role model (Brickman & Bulman, 1977). The existence of like-ethnicity role models for students of color in college is hardly debatable as extremely valuable for sources of motivation, inspiration, and support (Fleming, 1984). This upward comparison may well occur on the peer group level as well. For example, Astin (1993a) showed that African American students tend to become more politically liberal in college, whereas white students tend to become more politically conservative. One can argue that black students make upward comparisons with their relatively more liberal counterparts and gradually become less conservative in college. The analogous argument can be made for white students. In either case, the goal of the social comparison can be understood as self-improvement, with particularistic evaluation as the specific operating mechanism.

A third goal of making social comparisons is *self-enhancement*. The theory of downward comparison was formulated primarily as a process in which an individual's subjective well-being is enhanced by comparison with someone they consider to be worse off (Wills, 1981). Self-enhancement also proposes that it is most likely to occur when one's self-esteem is threatened. For example, when a family is experiencing financial difficulties and a strained budget, they may compare themselves to a homeless family and feel thankful that "at least we have a roof over our heads." For the student of color in college, threats to self-esteem may be cultivated by simply being present in a predominantly white environment.

For example, a lower class (socioeconomically) African American student at an affluent, predominantly white school may feel unwelcome, unworthy, and unprepared because of comparisons drawn with the majority students on campus. However, a downward comparison with the majority peer group on say, the political orientation dimension, may be used to combat these threats and enhance self-esteem.

In summary, social comparison theory describes a rationale and a process in which we may be able interpret peer group effects in college. The role of a student's peer group in self-evaluation, self-improvement, and self-enhancement is articulated as an informative referent and can be interpreted with respect to universalistic or particularistic evaluations, leading us toward greater understanding of the socialization and development of students of color in college.

Methodology

This investigation seeks to identify evidence of peer group influence on African American students using a quantitative, analytical approach. Quantitative measures of peer group norms and characteristics are introduced as intervening variables in a longitudinal assessment of student change in college. The confounding influence of individual student characteristics and other college environmental factors is addressed using statistical controls.

The Sample

Data is taken from a national study sponsored by the Cooperative Institutional Research Program and conducted by the Higher Education Research Institute at UCLA. In 1985, nearly 300,000 freshmen were surveyed to measure student background characteristics such as family income, race/ethnicity, parental occupations, and gender, as well as various measures of self-concept, social views, goals, and aspirations. A portion of these students were surveyed again in 1989 with similar measures to assess change on measures of various cognitive and affective outcomes. The largest student group of color in this sample and the focus of this study are the African American students ($n = 425$). The

study is also limited to predominantly white institutions to augment the qualitative differences between the African American peer group and white student peer group.

Data Analysis

In the preliminary stage of the analysis, insitutional-level factor analyses were performed on the 1985 freshman dataset to develop two sets of peer group measures. These measures were developed for both the African American and white student peer groups. White peer group measures were also of interest since their inclusion in the analysis allowed the investigation of whether African American students are influenced more strongly by particularistic (like-group) or universalistic (unlike-group) evaluations. The white peer factors were chosen over institution-wide (not mono-racial) peer factors to accentuate the distinctiveness of the two sets of measures. The factors extracted represent some of the normative values, attitudes, and behaviors that characterize the two groups. The average score for each of the latent variables was then calculated by institution, resulting in white and African American peer group characterizations for each institution in the database. These formulations were critical in characterizing the distinct makeups of these mono-racial peer groups. The descriptive peer group factors were then used as environmental variables that mediate student changes through four years of college. The regression procedure is explained in more detail below.

The dependent variables of the study are the student's academic self-concept and political orientation, each measured in 1989. These variables were chosen because as psychological, affective outcomes, it is hypothesized that they are more likely to exhibit effects of social comparison compared to behavioral data. Further, they reflect changes associated with academics as well as in the social development of students. Both measures also have identical questions in the 1985 survey which allow proper pretesting to assess actual change. The independent variables fall into four groups: student background characteristics (including demographics and self-concept measures, all measured in 1985), college characteristics, the peer group environment, and intermediate outcomes. The groups

generally follow a temporal order to allow controlling of input variables which may confound the influence of intervening variables on the outcome. The four groupings are used as separate blocks from which independent variables are tested for stepwise entry into a linear regression model. With this schema, college characteristics are not considered as predictors until background characteristics are controlled, and the peer environment is considered for inclusion only after the former two blocks are controlled. A further split of the peer environment block is made to separate effects of the two peer groups. This is done by allowing peer measures of the like-peer (African American) group to enter first, before the white peer measures are tested for entry. With this algorithm, it is possible to observe the influence of the unlike-peer group above and beyond that of the like-peer group. At this point, an intermediate outcome (Astin, 1993b), the student's college grade point average, is considered for entry into the regression equation (only for the academic self-concept outcome).¹ Variable blocks are listed in Appendix A.

Using the variable blocks as a causal guide, stepwise, linear regression is used to measure the relative influence of each group of variables on each of the outcomes. Focusing specifically on the contribution of the peer environment variables, two aspects of social comparison are addressed: (1) the extent of the use of particularistic and universalistic evaluations; and (2) the relative strength and utility of the social comparison process for each outcome. In the first instance, given an appropriate confidence level, the statistical significance of peer factors after controlling for inputs and college type indicates target usage. Thus, if both African American and white peer group factors retain significance in the analysis, usage of both particularistic and universalistic evaluations in the social comparison process is implied. In a similar fashion the magnitude and sign of the beta coefficients for contributing peer factors are interpreted as the strength (larger or smaller influence) and utility (positive or negative evaluation) of the social comparison process.

¹Since a student's college grades are so temporally close to the measurement of academic self-concept, it naturally has quite strong predictive power. This influence tends to mask weaker peer group effects, which arguably affects self-concept earlier in time. Discussion of the impact of this methodological choice is deferred to the results section.

Peer Group Measures

As stated earlier, the number and types of student attributes that may play a role in both the creation of peer groups and the type of influence they might exert on its members are countless. Hence, even with respect to just the two outcomes studied here, numerous measures of the nature of the student peer groups were desirable. This was done using exploratory factor analysis, performed on the 1985 freshman dataset to define separate peer measures for African American and white students at each institution. The pool of relevant variables from which factors were extracted were chosen in accordance with the simple classification recommended by Wilson (1966). Wilson suggested four classes including background attributes such as race and gender, a student's social characteristics derived from their family background (i.e., socioeconomic variables), variables related to the student's pre-college social roles and experiences, and lastly, personal traits along the lines of values, skills, knowledge, and attitudes. For this analysis, the significance of race in the definition of the peer factors was assumed a priori and separate analyses were performed for African American and white students. Other variables contained in the Freshman Survey fall into one of the three remaining classes.

Variables in the factor analysis included measures of students': goals (4 point scale, not important to essential); views (4 point scale, disagree strongly to agree strongly); expectations (4 point scale, no chance to very good chance); reasons to attend college (3 point scale, not important to very important); self-ratings (5 point scale, lowest 10% to highest 10%); activities in the past year (3 point scale, not at all to frequently); reasons for choosing their freshman college (4 point scale, not important to very important); and number of years of high school coursework in various subjects (7 point scale, none to five or more). Before extraction, each of these variables was aggregated down to the institutional level. Averaging effectively removed institutional bias that may result from overrepresentation of students at a single school. Using principal components extraction and orthogonal rotations, the factor analysis was completed twice, once each for African Americans and whites.

Average scores on the resulting measures were then calculated for each peer group at each institution. The creation of these factors allowed the concepts of social comparison theory to be operationalized through the explicit characterization of each peer group and the measurement of their effects on African American students through regression analyses. The resultant peer measures for each student group are described below. (For complete listings of factor makeup, loadings, and reliability coefficients, see Appendix B) As this analysis was performed for all freshmen (all races/ethnicities) on a practically identical dataset by Astin (1993a), many of the results are comparable and to a certain degree, replicated. Additional peer measures were constructed by taking institutional means of particular variables, and these are described in the section immediately following the factor analysis results.

Peer Factor #1: Academic Ability

The strongest, most reliable factor extracted in each analysis contains numerous variables grouped around the peer groups' *Academic Ability*. Common to both the African American and white peer groups are self-ratings of academic ability and mathematical ability, the expectation to be elected to an academic honor society in college, and a previous high school activity of tutoring another student. For white students, the peer measure also includes two additional self-ratings, intellectual self-confidence and drive to achieve. The African American peer group measure, on the other hand, includes two different additional variables: the number of years of math training and citing "a good academic reputation" as an important reason for choosing their college. The fact that academic ability self-rating has the strongest loadings for both groups led to the labeling of the first peer factor.

Although this and several subsequent factors are named identically for both peer groups, it should be remembered that their makeup may differ and reflect the interpretation of the label by the specific peer group. For this factor, an important distinction between the factors is the inclusion of intellectual self-confidence for the white students and its *absence* for African Americans. That is, for African Americans conceptions of intellectual self-

concept may not be as strongly associated with *Academic Ability* as it appears to be for white students.

Peer Factor #2: Permissiveness

The two peer groups share only one variable in common for the second peer factor, agreement with the view that men and women should live together before deciding to get married. However, the variables making up the factor for both groups all reflect permissive attitudes. Two additional variables round out the *Permissiveness* factor for African Americans: attended a religious service in the past year (negative loading) and agreement with the view that marijuana should be legalized. For white students, four additional variables reflecting permissive views define the peer factor: homosexual relations should be prohibited (negative loading), the government is not promoting disarmament, abortion should be legalized, and colleges should ban extreme speakers from campus (negative loading). Though the variables contained in the factor are different for each group, they all share a predominantly open and permissive connotation. Because of this commonality, the factor was termed identically for both peer groups. It should be noted, however, that many identical variables loaded on both factors, but only the strongest and tightest grouping of variables were retained to describe each factor. While the overall sense of both factors reflects permissiveness, their meanings may be understood in slightly different ways within each group.

Peer Factor #3: Social Activism

The social activism of the peer groups are commonly defined by three goals: to participate in a community action program, to help others in difficulty, and to influence social values. The white peer factor has the additional past activity, performed volunteer work, in its composition. In contrast, two additional goals, to be involved in environmental cleanup programs and to influence the political structure, round out the factor for African Americans. All of these variables reflect goals or activities focused on helping or influencing others. The differences between the two factors are subtle in this case, but still reflect slightly different

conceptions of social activism. In particular, influencing the political structure is more strongly tied to this measure of social activism for African American students than for white students.

Peer Factor #4: Social Self-Esteem

The *Social Self-Esteem* of both peer groups reflect self-ratings of social self-confidence, popularity, and emotional health. One additional self-rating each defined the factor for each group. Intellectual self-confidence loaded strongly for African Americans while self-ratings of physical health completed the factor for white students. As social-self confidence loaded strongest for both groups, the remaining self-ratings are interpreted to contribute to self-esteem on the social dimension, resulting in a factor reflective of social self-esteem. Interestingly, African American students closely relate their social and intellectual self-confidence, again forming a subtly distinct peer factor compared to the white measure.

Peer Factor #5: Materialism and Status

The *Materialism and Status* factor is characterized by six goals (to be very well off financially, to be successful in my own business, to become an expert in commerce and finance, to obtain recognition from colleagues for contributions to my field, to have administrative responsibility over people, to become an authority in my field) and two reasons to attend college (to be able to make more money and to get a better job). Each of these variables describe the white peer factor. With the African American peer group, the variables actually split into two separate factors, dividing along the lines of *Status* and *Materialism*. The four goals pertaining to becoming an expert in finance, being successful in their own business, being an authority in their field, and having administrative responsibility create the *Status* factor for African Americans. The separate *Materialism* factor includes the two monetary reasons for attending college listed above, the goal to be very well off financially, and the view that college increases one's buying power. This distinction between the desire to make money and aspirations for status may be reflective of the lower socioeconomic status of African American freshmen compared to white students.

Peer Factor #6: Artistic Inclination

The last peer factor common to both peer groups is identified by three variables: the student won an award in an art contest (past activity), having the goal to create artistic works, and artistic ability self-rating. The African American factor includes the additional goal, to achieve in a performing art. All variables reflect a groups' inclination or interest in the arts.

Peer Factor #7: School Stress

School Stress is one of two factors extracted uniquely for the African American peer group. The four variables that load strongly on this factor are all high school activities in which a student didn't turn homework in on time, felt depressed, felt overwhelmed by all they had to do, and missed school because of an illness. *School Stress* was chosen to mark this factor as it appears that the school activities listed above were strongly associated with feeling depressed and overwhelmed.

Peer Factor #8: Government Involvement

The final factor for African American students contains four views concerning the involvement of the federal government in social issues. The four positively loading variables support the following statements about the role of the federal government: (1) the government is not doing enough to protect the consumer from faulty goods and services; (2) the government is not doing enough to control environmental pollution; (3) the government should discourage energy use; and (4) the government is not doing enough to promote disarmament. While each of these views are also fairly "liberal" views, the strongest commonality among them is the explicit role of the government within these views.

The most striking result of the factor analyses is the similarity of the types of factors extracted for both African American and white freshmen. The particular makeup of the factors differed slightly, but overall each factor represented similar clustering characteristics. This particular subset of society (first-time, full-time freshmen) probably shares more commonalities than differences with respect to general concerns, aspirations, and beliefs. On a given college campus, however, the degree to which each of the factors characterize peer

groups may differ. In other words, there are likely to be differences in each groups' degree of Academic Ability, Permissiveness, Artistic Inclination, or Social Activism.

Additional Peer Measures

Five additional peer measures were created by calculating average scores on selected variables for members of each peer group within each institution. These variables include the students' *High School Grades*, *SAT Scores* (composite scores), *Political Orientation* (5 point scale, far right to far left), and amount of *Financial Concern* for college (3 point scale, no concern to major concern). Additionally, peer *Socioeconomic Status* was measured by combining scores of each student's income, mother's education level, and father's education level, and creating institutional aggregates by peer group.

Results

Academic Self-Concept

Academic self-concept was measured by asking students to rate their academic ability as compared with "the average person your age" in 1989. Response categories were: 1-Lowest 10%, 2-Below average, 3-Average, 4-Above average, 5-Highest 10%. The identical question was asked four years earlier in their freshman year (1985). Though not the focus here, a brief look at the entering input variables predicting academic self-concept is shown in Table 1. Note that all the input variables were measured in 1985, the students' freshman year. As expected, the pretest variable carries the largest weight ($\beta = .51$), followed by a student's SAT scores and two self-ratings. Interestingly, African American students whose fathers are clergymen also tend to have higher academic self-concepts. Since the entering beta coefficient for this variable is identical to the simple correlational relationship with the outcome, the effect appears to be direct - that is, independent of a student's initial self-concept and academic performance (through SAT scores and high school rank). This may imply either an academic nurturing of the student related to being raised by a minister or the positive effect of the level of knowledge possessed by clergymen that is not captured by measures of formal education. One input variable had a negative effect, the high school

activity of frequently not turning in homework on time. Taken together, the input variables make up 88% of the final multiple regression coefficient of $R=.676$, which is expected given numerous researchers' recognition of the predictive strength of input variables (Newcomb & Wilson, 1966; Feldman & Newcomb, 1969; Astin, 1977).

 Insert Table 1 about here

Table 2 contains the African American and white peer factors that influence academic self-concept. Three factors entered the final regression equation, raising the amount of explained variance by only 3%. This relatively small increase was not unexpected for two reasons. First, input variables were expected to carry the most weight in the analysis, and secondly, as aggregated environmental measures, the actual effect of peer measures will tend to become attenuated. In other words, any peer effects seen in the analysis are likely to err on the conservative side. Even given conservative measurements, the first column of regression coefficients clearly indicate a prominent focus on the affluence of students peers. After controlling for individual characteristics and institution type, the academic self-concept of African Americans is potentially enhanced by the presence of high socioeconomic-status white students on campus and depressed by the influence of all peers with financial difficulties in college.

 Insert Table 2 about here

Allowing African American peer measures to enter the analysis in the next column, we see that only the Financial Concern of their peer group enters, and in doing so, causes the counterpart measure for the white peer group to lose strength and significance. This indicates that although concern for paying for college by one's peers tends to detract from academic self-concept, for African American students it is not the general concern campus-

wide that affects them, but primarily the concern that exists among their African American peers. Apparently, beyond individual academic achievement, entering academic self-concept, and even their individual sense of financial concern, African American students' academic self-concepts are negatively affected by their peers' concerns for finances. A possible interpretation of this result is that African American students may feel academically disadvantaged in an environment where concerns for financing college are high among their peers because economic difficulty is being associated with or even equated to unequal preparedness. In other words, since lower SES backgrounds are generally correlated with lower grades and test scores, and lower test scores are typically associated with academic underpreparedness, low SES students or those with the most financial difficulty may draw links between their economic status and their academic abilities. An African American student having this perception may make particularistic comparisons with their peers and lower their self-concept, or worse, he or she may become socialized by the college environment to associate their race with their peer group's Financial Concern, with academic underpreparedness, and consequently with their own (lowered) academic self-concept.

In the next block, the influence of the white peer group is examined. First, the Socioeconomic Status (SES) of white peers remains significant and enters high and positive. Consequently, the Academic Ability of the white peer group gains significance and enters the equation in the next step. Remembering that the context for these analyses is on predominantly white campuses, it is likely that what is most salient to African American academic self-concept is the level of affluence of the white students on campus, since higher social class backgrounds are typically found at more prestigious institutions whose reputations alone may enhance academic self-concept. With respect to the Academic Ability of white peers, the negative effect of being in an academically competitive environment (high peer Academic Ability) also becomes clear, indicating that the high status backgrounds of white students masks the true nature of the competitive campus. Furthermore, the negative effects of this competition are felt more strongly through white peers. Controlling for the

SES of white peers also accentuates the effect of African American Financial Concern (increases its regression coefficient) and reverses the non-significant effect of African American peer SES to become negative. This is further evidence that social class continues to be popularly associated with academic ability, and in this case, may be confounded with race.

After the white peer measures are controlled, the analysis clearly indicates that African American students do tend to use both particularistic and universalistic² evaluations in the social comparison process for distinct reasons. Significant positive effects due to social class are seen only with respect to the Socioeconomic Status of white students. On the other hand, the financial difficulty of their own peer group detracts from a positive self-concept. Furthermore, detriments to academic self-concept by the high academic abilities of fellow students are more strongly influenced by institution-wide peers, represented by the white peer measure, than by other African Americans on campus. In other words, African American students in predominantly white institutions may be more strongly influenced by white student peers in some instances, especially because of their greater numbers, yet still significantly affected by the smaller African American presence in others. Target usage is apparently not uniform, but dependent on the specific group characteristic. It is also disturbing to note that, at least with the set of peer measures used here, only comparisons with white peers contribute to self-enhancement. This result may be an artifact of the types of peer measures available in this study, given that only one type of peer measure, SES, contributes positively to academic self-concept anyway. However, the fact that a sign reversal occurs for the African American peer measure when white SES enters positively emphasizes the qualitative differences between the two effects.

As mentioned in the methodology, individual college grades was not allowed to enter the equation until after all peer measures were allowed to enter. Since college grades are asked at the same time as academic self-concepts and since they are recognized as a

²For African American students in PWIs, comparisons with white peers can be interpreted as universalistic since white students represent the campus as a whole, and further, other people generally of the same age.

traditional measure of academic competency, they tend to carry a large amount of predictive weight and may mask the relationships between smaller effects. In this analysis, college grades enters with a beta of approximately 0.29 ($p < .01$). In the interest of allowing the analysis to tease out the relationships between the different peer group factors, then, peer factors were entered first. Interestingly, however, only the white peer factors decrease in strength when college grades are controlled (a normal effect). The African American peer factor, in fact, slightly increases in magnitude (a suppressor effect³). It appears that African American students are truly affected in a negative way by their peers' financial difficulties in college, and their individual academic performance does not reduce this influence, but rather, exacerbates it.

Political Orientation

Political orientation was identified by students as far right, conservative, middle-of-the-road, liberal, or far left (scored 1 to 5). The outcome, measured in 1989, was identically pretested in the Freshman Survey of 1985. Input variables contributing to political orientation are listed in Table 3. As with academic self-concept, the pretest holds the most predictive power ($\beta = .29$), followed by a number of traditionally "conservative" (negative betas) and "liberal" (positive betas) views and goals. The three academically related variables entering the analysis, highest degree aspirations, SAT scores, and writing ability are all indicative of more liberal orientations. High social self-confidence, however, is associated with more conservative political identifications. The nine input variables make up 95% of the final multiple regression coefficient ($R = .484$), which indicates that institutional type and peer factors are relatively weak influences on a student's political orientation. This result was generally found to be true by Astin (1993a) in a similar analysis of all freshmen.

 Insert Table 3 about here

³For statistical explanations of normal effects and suppressor effects, see Astin, 1993b.

Table 4 shows the peer group factors that affect political orientation. Only two measures enter the final equation, and as was the case with academic ability, they account for only 9% of the total explained variance (R^2). Two additional factors, however, are significant before peer measures are allowed to enter. After inputs and institutional type are controlled, three white peer factors are associated with increased liberalism, including W-Artistic Inclination ($\beta = .13$), W-Political Orientation ($\beta = .10$), and W-Permissiveness ($\beta = .10$). The only significant like-peer factor is African American Status, which is associated with increased political conservatism. Interestingly, none of the African American peer group measures complementary to the three white peer factors are statistically significant or of comparable magnitude, particularly AA-Political Orientation. Upon entering a predominantly white institution, the political orientations of African American students appear to be potentially influenced by many more white (or institutional) peer characteristics than like-peer characteristics. In other words, African American students may draw upon many universalistic evaluations and fewer particularistic ones with respect to the development of their political orientations in college. Also noteworthy is the lack of influence of white Materialism and Status and African American Materialism on the outcome. In this case, the splitting of the materialism and status characteristics of the African American peer group reveals that the politically conservative influence stems from peers with aspirations for primarily authority and expertise and not simply money and a good job.

 Insert Table 4 about here

Controlling for the Status orientation of African American peers reduces the influence of the three white peer factors, leaving only the W-Artistic Inclination significant. Simultaneously, the signs of the nonsignificant regression coefficients for AA-Materialism and W-Materialism and Status switch from negative to positive, accentuating the distinction between status and materialism orientations and their relationship to political orientation. In

this analysis, then, the salience of a particularistic evaluation (comparison with the Status orientation of other African Americans on campus) is relatively high compared to the universalistic evaluations based on the permissiveness and political orientation of white peers.

The remaining white peer factor, W-Artistic Inclination, remains significant and enters in the next step when white peer factors are controlled. Its entrance into the equation suggests that predominantly white campus environments with strongly artistically inclined students tend to influence African American students toward the left. The fact that the Artistic Inclination of the African American peer group simultaneously has no effect may indicate that like-peer comparisons on this related dimension are not salient.

Discussion

Using the guiding framework of social comparison theory, this study has explored the influence of white and African American peer groups in college, the relative strength of this influence, and the use of particularistic and universalistic evaluations by African American students. In this effort to begin to understand the social psychological interaction between peer groups and individual students, a number of observations can be made.

First, the results of the factor analyses indicate that the types of characteristics that describe the makeup of campus peer groups are very similar among African American and white students. Similar measures described the degree of each groups' academic ability, materialism and status, social activism, permissiveness, social self-esteem, and artistic inclination. For example, Academic Ability is generally defined in terms of academic and mathematical self-concepts, Social Activism by goals to help the community and influence social values, and Artistic Inclinations by artistic abilities and goals. Among the students in this population (first-time, full-time freshmen), there appears to be a significant amount of homogeneity or similarity. However, small variations in the makeup of each factor for each group indicate subtle between-group differences in the understanding and self-definitions of group characteristics. For example, intellectual self-confidence clustered with Social Self-

esteem measures for African Americans, but for whites the same variable clustered with Academic Ability. The minor variation within each of these quite similar factors remind us that differences among college students occurring on a group level exist but may be difficult to ascertain and measure because of aggregation effects.

Second, although entering characteristics of students were the most instrumental in affecting academic self-concept and political orientation, peer group influence was also evident in these areas. Both particularistic and universalistic evaluations appeared to be operating as both white and African American peer factors significantly influenced these outcomes. The relative influence of the white peer group, however, appears to be somewhat stronger and more prevalent. The predominantly white environment of most colleges probably offers more white referents to African American students and reduces some of the potential influence of the African American peer group. Still, the results of this study indicate that in the face of that environment, African American students do differentiate between black and white influences on campus as they develop through college. And, this differentiation is complex and interrelated along a number of different dimensions or characteristics. For example, perceptions African American students made concerning their academic ability were influenced not only by the academic ability of white peers, but also by the related dimensions of white peer socioeconomic status and African American peer concern with finances.

At the root of these results is the recognition of the psychosocial influence that different peer groups may have on students whether or not they consider themselves a member of that particular group. And, these results imply, this influence may be differentiated across racial lines. In this case, African American students were influenced by not only their black peers, but also and sometimes more strongly, by their white peers. Although here the focus was on African American students, it is not unreasonable to expect similar peer dynamics for other students of color attending predominantly white institutions. In simplest terms, African American college students, and I would conjecture, students of

any color are not colorblind. That is, students do differentiate their peers by race and ethnicity as they learn and develop in college; they do not, especially on a psychosocial level, ignore skin color and in naive liberal fashion, ignore difference. Note that in this investigation, black and white peer group influence was not explored for their effects on anything explicitly racial. Yet even when judging their own academic self-concept, African American students were found to see in black and white.

Lastly, it has become clear that a deeper understanding of the social comparison process within and between peer groups on campus is necessary. Do we really understand how the informal campus environment of peers is affecting our students? The broad question concerning the existence and strength of peer group influence is addressed here, but specific questions also need to be asked to gauge the relevant contexts of socialization on a particular campus. Answers to these questions can lead toward the understanding of the socialization functions of the college experience.

For practitioners and researchers in higher education, recognizing that students are not colorblind but indeed learn and develop in color is vital for understanding the current and future multicultural college campus. Our task is to seize that recognition and use it to help build William Tierney's (1993) "communities of difference" that recognize and appreciate but do not hierarchically arrange and stratify diversity. The power of peer group influence, and in particular, the influence within and between racially based and other more homogenous peer groups, should be acknowledged and utilized for maximal student development. It is not suggested that these peer groups be artificially constructed on campus, but given their existence, the existing dynamic can be used to address particular issues. For example, in this study the academic self-concept of African American students is negatively affected by the high financial concerns of the African American peer group as well as the relatively higher academic ability of the white student peer group. This psychological peer group interaction can be addressed through specific counseling efforts for African American students that deal with peer-level perceptions of the financial difficulty of African Americans and the academic

ability of white students. Other outcomes not studied here such as social self-concept and citizenship are also likely to have psychological group interactions between racially based peer groups. By ascertaining and understanding these interactions, it may be possible to directly address the group dynamics of the multicultural campus environment and actively foster and develop more positive and developmentally desirable interactions among students.

Limitations

This study has attempted to uncover some of the ways in which a college student peer group influences its members. It also attempted to differentiate between the influence of campus peers as a whole and the specific African American peer group within predominantly white institutions. An analytical, quantitative approach was used to characterize peer group characteristics and operationalize the social comparison process. Many fair criticisms could be leveled to this approach. First, as with any quantitative approach in the social sciences, underlying social psychological processes are inferred, not measured. The specific agents of influence (particular students or groups of students) are not identified and tracked for each individual student, nor are questions probing the social influence process asked. Second, aggregate measures of certain peer factors may not necessarily reflect what a student is exposed to in their closest, three or four person peer group. Lastly, the degree of the dominance of peer group influence will vary with any given student according to the context of their college experience. Commuters, for example, are probably less susceptible to the influence of campus peers than are residents. These limitations suggest that smaller scale, intra-institutional studies are probably necessary to uncover many of the issues brought up in this study. Under what conditions are different dimensions of each peer group more or less salient to students of color? How explicit are social comparisons? Are concrete comparisons drawn or are most comparisons unconscious reactions to the environment?

Given these criticisms, the study still provides evidence suggesting the existence of a general phenomenon on predominantly white campuses, the competing influence of majority and racial or ethnic peer groups on students of color. The limitations listed above may in fact

reduce the study's effectiveness in illustrating peer influence. Positive results in this analysis, then, probably underestimate the strength and prevalence of the psychological peer group interactions inferred by the study.

Extensions

This study shows how racially/ethnically-derived peer groups can differentially affect African American college students. The focus of the investigation is obviously limited to specific players in a particular social context and begs to be elaborated under various other contexts. This study has not tackled the potentially strong effects of gender, academic major, involvement in campus ethnic organizations, or intercollegiate athletics as primary grouping characteristics of peer groups, nor has it considered measures of specific campus environments such as men's and women's colleges, historically black colleges and universities, and urban or rural campuses. Also untouched in this study is an analysis of the influence of off-campus peers. As described in the literature review, the field is severely lacking research in all of these areas. Continued work on peer group influence will greatly increase our understanding of intergroup and interpersonal dynamics on our college campuses.

References

- Altbach, P., and Lomotey, K. (eds.) (1991). *The Racial Crisis in American Higher Education*. New York: State University of New York Press.
- Antonio, A. (1994). *A Question of Proximity. The Influence of the Institutional Peer Group on African American College Students*. Unpublished manuscript, University of California, Los Angeles.
- Astin, A. (1993a). *What Matters in College? Four Critical Years Revisited*. San Francisco: Jossey-Bass.
- Astin, A. (1993b). *Assessment for Excellence*. Phoenix, AZ: Oryx Press.
- Astin, A. (1977). *Four Critical Years*. San Francisco: Jossey-Bass.
- Bachman, J., and O'Malley, P. (1986). Self-concepts, self-esteem, and educational experiences: The frog pond revisited (again). *Journal of Personality and Social Psychology*, 50(1), 35-46.
- Bassis, M. (1977). The campus as a frog pond: A theoretical and empirical reassessment. *American Journal Sociology*, 82(6), 1318-1326.
- Berger, S. (1977). Social comparison, modeling, and perseverance. In J. Suls and R. Miller (eds.), *Social comparison processes: Theoretical and empirical perspectives*. Washington, D.C.: Hemisphere.
- Brickman, P., & Bulman, R. (1977). Pleasure and pain in social comparison. In J. Suls and R. Miller (eds.), *Social comparison processes: Theoretical and empirical perspectives*. Washington, D.C.: Hemisphere.
- Clark, B. and Trow, M. (1966). The organizational context. In T. Newcomb and E. Wilson (eds.), *College Peer Groups*. Chicago: Aldine.
- Davis, J. (1966). The campus as a frog pond: An application of the theory of relative deprivation to career decisions of college men. *American Journal of Sociology* 72(1), 17-31.
- Duster, T. (1991). *The Diversity Project: Final Report*. Institute for the Study of Social Change. University of California, Berkeley.
- Feldman, K., and Newcomb, T. (1969). *The Impact of College on Students*. San Francisco: Jossey-Bass.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.
- Fleming, J. (1984). *Blacks in Collge*. San Francisco: Jossey-Bass.

- Marsh, H., and Parker, J. (1984). Determinants of student self-concept: Is it better to be a relatively large fish in a small pond even if you don't learn to swim well? *Journal of Personality and Social Psychology*, 47(1), 213-231.
- Miller, D. T., Turnbull, W., and McFarland, C. (1988). Particularistic and universalistic evaluation in the social comparison process. *Journal of Personality and Social Psychology*, 55, 908-917.
- Newcomb, T. (1961). *The Acquaintance Process*. New York: Holt, Rinehart, and Winston.
- Newcomb, T., and Wilson, E. (eds.) (1966). *College Peer Groups*. Chicago: Aldine.
- Newcomb, T. (1966). The general nature of peer group influence. In T. Newcomb and E. Wilson (eds.), *College Peer Groups*. Chicago: Aldine.
- Pascarella, E. (1985). College environmental influences on learning and cognitive development: A critical review and analysis. In J. Smart (ed.), *Higher education: Handbook of theory and research*. New York: Agathon.
- Pascarella, E., and Terenzini, P. (1991). *How College Affects Students*. San Francisco: Jossey-Bass.
- Tajfel, H. (1972). Experiments in a vacuum. In J. Israel and H. Tajfel (eds.), *The context of Social Psychology: A Critical Assessment*. London: Academic Press.
- Thistlethwaite, D., and Wheeler, N. (1966). Effects of teacher and peer subcultures upon student aspirations. *Journal of Educational Psychology*, 57(1), 35-47.
- Tierney, W. (1993). *Building Communities of Difference*. Westport, CT: Bergin & Garvey.
- Wallace, W. (1966). *Student Culture: Social Structure and Continuity in a Liberal Arts College*. Chicago: Aldine.
- Werts, C., and Watley, D. (1969). The student's dilemma: Big fish-little pond or little fish-big pond. *Journal of Counseling Psychology*, 16(1), 14-19.
- Weidman, J. (1989). Undergraduate socialization: A conceptual approach. In J. Smart (ed.), *Higher education: Handbook of theory and research*. New York: Agathon.
- Wills, T. (1981). Downward comparison principles in social psychology. *Psychological Bulletin*, 12, 282-288.
- Wilson, E. (1966). The entering student: Attributes and agents of change. In T. Newcomb and E. Wilson (eds.), *College Peer Groups*. Chicago: Aldine.

Appendix A

Composition of Variable Blocks

Composition of Variable Blocks

first block: background characteristics:

demographics

gender (dichotomous)
 family income
 father's education level
 mother's education level

father's career:

business
 college teacher
 doctor
 secondary education
 elementary education
 engineer
 lawyer
 research scientist
 skilled worker
 unemployed

mother's career:

business
 college teacher
 doctor
 secondary education
 elementary education
 engineer
 lawyer
 nurse
 homemaker
 research scientist
 skilled worker
 unemployed

student's high school activities

self-rated abilities:

academic
 writing
 intellectual self-confidence

mathematical
 understanding of others
 social self-confidence

average high school grades
 SAT scores

highest degree aspirations

activities in the past year:

participated in demonstrations
 tutored another student
 was guest in teacher's home
 discussed politics

attended a religious service
 did extra course work

didn't complete HW on time
 studied w/another student
 studied in the library
 asked teacher for advice
 after class
 performed volunteer work

reasons to go to college:

prepare for grad/prof school
 be able to make more money

improve reading/study skills
 get a better job

first block continued: background characteristics:

rated chances of in the future:

failing one or more courses	graduating with honors
needing xtra time to get BA	

political orientation

agree strongly with:

'there's too much concern in the courts for the rights of criminals'
 'the death penalty should be abolished'
 'the activities of married women are best confined to the home and family'
 'racial discrimination is no longer a problem in America'
 'wealthy people should pat a larger share of taxes than they do now'
 'colleges should prohibit racist/sexist speech on campus'

view goals as important:

'becoming an authority in my field'
 'influencing social values'
 'being very well off financially'
 'helping others who are in difficulty'
 'developing a meaningful philosophy of life'
 'helping to promote racial understanding'
 'keeping up to date with political affairs'

second block: college characteristics:

institution type:

public university	private university
public four-year college	private four-year college
public two-year college	private two-year college

third block: peer environments:

AA academic ability	W academic ability
AA permissiveness	W permissiveness
AA social activism	W social activism
AA materialism	W materialism and status
AA social self-esteem	W social self-esteem
AA artistic inclination	W artistic inclination
AA status	W high school grades
AA school stress	W SAT scores
AA gov't involvement	W socioeconomic status
AA financial concern	W financial concern
AA political orientation	W political orientation
AA socioeconomic status	

fourth block: intermediate outcome:

college grade point average

Appendix B

Composition of Peer Factors

Factor Analysis Results for African American (AA) students in Predominantly White Institutions

factor #1 AA Academic Ability ($\alpha = .901$)

measure	factor loading
academic ability (self-rating)	.845
be elected to an academic honor society (expectation)	.767
mathematical ability (self-rating)	.759
years studied math in high school	.752
college has a good academic reputation	.741
(reason to choose freshman college)	
tutored another student (high school activity)	.725

factor #2 AA Permissiveness ($\alpha = .946$)

measure	factor loading
attended a religious service (high school activity)	-.737
marijuana should be legalized (view)	.690
a couple should live together before marriage (view)	.660

factor #3 AA Social Activism ($\alpha = .785$)

measure	factor loading
participate in a community action program (goal)	.792
be involved environmental cleanup (goal)	.687
help others in difficulty (goal)	.668
influence the political structure (goal)	.542
influence social values (goal)	.521

factor #4 AA Social self-esteem ($\alpha = .839$)

measure	factor loading
social self-confidence (self-rating)	.817
intellectual self-confidence (self-rating)	.738
popularity (self-rating)	.673
emotional health (self-rating)	.668

factor #5 AA Status Orientation ($\alpha = .681$)

measure	factor loading
become an expert in commerce and finance (goal)	.679
be successful in my own business (goal)	.677
have administrative responsibility over others (goal)	.642
become an authority in my field (goal)	.529

factor #6 AA Materialism Orientation ($\alpha = .716$)

measure	factor loading
to be able to make more money (reason to attend college)	.752
to get a better job (reason to attend college)	.742
be very well off financially (goal)	.507
college increase one's buying power (view)	.454

factor #7 AA Artistic Inclination ($\alpha = .778$)

measure	factor loading
create artistic works (goal)	.828
won award in art contest (high school activity)	.722
achieve in a performing art (goal)	.715
artistic ability (self-rating)	.681

factor #8 AA School Stress ($\alpha = .656$)

measure	factor loading
didn't turn homework in on time (high school activity)	.612
felt depressed (high school activity)	.611
felt overwhelmed by all I had to do (high school activity)	.585
missed school because of an illness (high school activity)	.562

factor #9 AA Government Involvement ($\alpha = .677$)

measure	factor loading
federal government is not doing enough to protect consumer (view)	.703
federal government is not doing enough to control pollution (view)	.574
federal government should discourage energy use (view)	.451
federal government is not doing enough to promote disarmament (view)	.414

Factor Analysis Results for White (W) students in Predominantly White Institutions

factor #1 W Academic Ability ($\alpha = .937$)

measure	factor loading
academic ability (self-rating)	.928
mathematical ability (self-rating)	.867
tutored another student (high school activity)	.865
intellectual self-confidence (self-rating)	.846
drive to achieve (self-rating)	.840
be elected to an academic honor society (expectation)	.826

factor #2 W Permissiveness ($\alpha = .806$)

measure	factor loading
homosexual relations should be prohibited (view)	-.898
federal government is not doing enough to promote disarmament (view)	.836
a couple should live together before marriage (view)	.807
abortion should be legal (view)	.790
colleges should ban extreme speakers from campus (view)	-.789

factor #3 W Social Activism ($\alpha = .870$)

measure	factor loading
participate in a community action program (goal)	.854
help others in difficulty (goal)	.795
influence social values (goal)	.786
performed volunteer work (high school activity)	.650

factor #4 W Social self-esteem ($\alpha = .908$)

measure	factor loading
social self-confidence (self-rating)	.768
popularity (self-rating)	.728
physical health (self-rating)	.719
emotional health (self-rating)	.662

factor #5 W Materialism and Status orientation ($\alpha = .895$)

measure	factor loading
be very well off financially (goal)	.855
be successful in my own business (goal)	.763
become an expert in commerce and finance (goal)	.749
to be able to make more money (reason to attend college)	.742
obtain recognition from colleagues (goal)	.668
have administrative responsibility over others (goal)	.651
become an authority in my field (goal)	.626
to get a better job (reason to attend college)	.604

factor #6 W Artistic Inclination ($\alpha = .859$)

measure	factor loading
won award in an art contest (high school activity)	.857
create artistic works (goal)	.778
artistic ability (self-rating)	.705

Table 1. Input variables predicting the academic self-concept of African American students four years after entering college (n = 418)

variable	step	multiple R	simple R	beta at entry*
academic ability self-rating in 1985 (pre-test)	1	.508	.51	.51
SAT scores	2	.544	.41	.22
intellectual self-confidence (self-rating)	3	.566	.31	.16
writing ability self-rating	4	.576	.31	.12
rank in high school	5	.585	.34	.12
father is a clergyman	6	.592	.09	.09
did not complete homework on time (high school activity)	7	.598	-.08	-.08

*Standardized regression coefficient upon entry into the equation at $p < .01$

Table 2. Peer group influences on the academic self-concept of African American students four years after entering college (n = 418)

Peer Measure ^a	simple R	†Beta after inputs and institution type	‡Beta after AA peer measures	‡Beta after W peer measures	Beta after college grades
AA - Financial Concern	-.21	-.10*	-.10*	-.12**	-.13**
W - Financial Concern	-.23	-.09*	-.05	.04	.02
W - Socioeconomic Status	.33	.11*	.10*	.20**	.15**
AA - Socioeconomic Status	.31	.06	.03	-.08	-.11
W - Academic Ability	.30	-.03	-.08	-.20**	-.16**
AA - Academic Ability	.30	-.02	-.05	-.08	-.03
		(R ² =.358)	(R ² =.366)	(R ² =.389)	(R ² =.457)

^aPeer group measures: W - white peer group, AA - African American peer group. Variables entering the final equation are in bold type. Those variables not entering the equation are in normal type.

†Standardized regression coefficient after inputs and institution type are controlled, if entered into the equation in the next step.

‡Standardized regression coefficient after set of peer group measures are controlled, if entered into the equation in the next step.

** $p < .01$, * $p < .05$

Table 3. Input variables predicting the political orientation of African American students four years after entering college (n = 415)

variable	step	multiple R	simple R	beta at entry*
political orientation in 1985 (pre-test)	1	.285	.29	.29
federal gov't is not promoting disarmament (view)	2	.350	.24	.21
highest degree aspirations	3	.383	.19	.16
homosexual relations should be prohibited (view)	4	.404	-.19	-.13
SAT scores	5	.417	.21	.11
attending college to make more money (important)	6	.431	.06	.11
social self-confidence self-rating	7	.440	-.09	-.09
promote racial understanding (life goal)	8	.453	.15	.11
writing ability self-rating	9	.462	.16	.09

*Standardized regression coefficient upon entry into the equation at $p < .01$

Table 4. Peer group influences on the political orientation of African American students four years after entering college (n = 415)

Peer Measure ^a	simple R	[†] Beta after inputs and institution type	[‡] Beta after AA peer measures	[‡] Beta after W peer measures
AA -Status Orientation	-.19	-.10*	-.10*	-.08
AA - Materialism	-.15	-.03	.04	.10
W - Materialism and Status	-.18	-.03	.01	.04
W - Artistic Inclination	.20	.13**	.12*	.12*
AA - Artistic Inclination	.13	.08	.08	.04
AA - Political Orientation	.17	.02	.02	-.01
W - Political Orientation	.19	.10*	.08	.02
AA - Permissiveness	.10	.06	.05	.04
W - Permissiveness	.21	.10*	.07	.01
		(R ² =.213)	(R ² =.222)	(R ² =.235)

^aPeer group measures: W - white peer group, AA - African American peer group. Variables entering the final equation are in bold type. Those variables not entering the equation are in normal type.

[†]Standardized regression coefficient after inputs and institution type are controlled, if entered into the equation in the next step.

[‡]Standardized regression coefficient after set of peer group measures are controlled, if entered into the equation in the next step.

** $p < .01$, * $p < .05$